

ABSTRACT

The invention relates to a rapid response method for the failure of a link between two routing domains in a packet-oriented network. Once the failure of a link has been identified, substitute routes are provided for the interrupted routes by the local selection of alternative routes and by the propagation of messages along the substitute routes. In contrast to conventional inter-domain protocols such as the BGP (Iborder gateway protocol) the transmission of messages and the associated modification to the routing only involves routing domains that lie along the replacement routes. In one embodiment, a network-wide propagation of messages takes place if the failure of the link represents a persistent breakdown. As a consequence, optimal routes are re-determined in the entire network. The invention provides breakdown compensation that is appropriate for temporary breakdowns and prevents instabilities that occur as a result of the use of conventional inter-domain protocols.